

**CLAIMS**

1. A recreation range system including a field and a rotatable range carousel.
2. The system of claim 1 wherein, said range carousel  
5 is provided with at least one player level wherein the periphery of said player level is divided into a plurality of player lanes, said player lanes provided with ball delivery means and said field provided with ball retrieval means.
- 10 3. The recreation range system of claim 2 wherein the periphery of said field is provided with a plurality of target structures.
4. The recreation range system of claim 3 wherein said carousel is offset from the center of said field.
- 15 5. The recreation range system of claim 4 wherein the surface of said field slopes downwardly from said carousel to said periphery of said field.
6. The recreation range system of claim 5 wherein said field is constructed as a suspended surface  
20 overlying a substantially dished subsurface.
7. The recreation range system of claim 1 wherein said carousel is provided with two player levels; an upper level and a lower level arranged one above the other around a central support column.

8. The recreation range system of claim 7 wherein said central support column is rotatably supported, said column and said carousel adapted to be urged in circular motion by a power source acting through a drive train.
9. The recreation range system of claim 8 wherein said ball delivery means and said ball retrieval means are adapted to process a range of ball sizes.
10. The recreation range system of claim 9 wherein said ball delivery means and said ball retrieval means are provided with a plurality of balls, each of said balls provided with a unique electronically readable ball recognition code.
11. The recreation range system of claim 10 wherein said ball retrieval means is adapted to return balls from the periphery of said field to said central support column.
12. The recreation range system of claim 11 wherein said ball retrieval means includes a plurality of ball collection troughs disposed around the periphery of said field, each of said collection troughs communicating with said central support column by underground shafts sloping downwardly from said periphery towards said central support column.

13. The recreation range system of claim 1 and claim 6 wherein said ball retrieval means includes a plurality of openings along the periphery of said field, said openings allowing balls to drop to said  
5       dished subsurface.
14. The recreation range system of claim 12 and claim 13 wherein said ball delivery means is provided with a ball collections and sorting chamber adapted to sort said ball sizes and deliver sorted balls to  
10       designated said player lanes.
15. The recreation range system of claim 14 wherein a player urges a ball to follow a trajectory from one of said player lanes in a generally radial direction from said range carousel towards said periphery of  
15       said field.
16. The recreation range system of claim 15 wherein a ball urged by said player from said player lane towards said periphery of said field is tracked electronically.
- 20    17. The recreation range system of claim 16 wherein said target structures are adapted to display a variety of target images.
18. The recreation range system of claim 17 wherein said target images are provided with electronic sensor

means adapted to record the impact of a ball and the recognition code of said ball.

19. The recreation range system of claim 18 wherein said target images are associated with a point credit system, said credit system adapted to award credit points to a player when a ball urged by said player strikes said target image.

20. The recreation range system of claim 19 wherein said field may be adapted to display a number of target areas, said target areas provided with sensors to detect the impact of a ball and the recognition code of said ball.

21. The recreation range system of claim 20 wherein said credit points accruing to a player are electronically displayed on display means at the player lane used by said player.

22. The recreation range system of claim 21 wherein said credit points accrued to a player during a player session are stored in a central database storage facility as a score, said score being available for retrieval from said database for display at subsequent player sessions.

23. The recreation range system of claim 22 wherein said scores stored in said database storage facility are available for printout.
- 5 24. The recreation range system of claim 23 wherein said scores are associated with a prize conferring system.
- 10 25. The recreation range system of claim 24 wherein said field is provided with a plurality of ball mortars arranged radially and at various distances from the center of said range carousel, said ball mortars adapted to urge a ball into any one of a range of specified trajectories, said trajectories ending in the area of a player lane.
- 15 26. The recreation range system of claim 25 wherein said trajectories are adapted to present a ball to a said player on said player lane simulating a range of ball approaches to a player as experienced in a game of soccer.
- 20 27. The recreation range system of claim 26 wherein said ball retrieval means is adapted to provide said balls on demand to said ball mortars.
28. The recreation range system of claim 27 wherein said carousel is provided with amenities, said amenities including a kiosk.

29. The recreation range system of claim 28 wherein said upper player level is provided with a safety net extending radially outward from the periphery of said player level.
- 5 30. A method for operating a recreation range, said recreation range including a field and a rotatable range carousel, said range carousel provided with at least one player level wherein the periphery of said player level is divided into a plurality of player  
10 lanes, said player lanes provided with ball delivery means and said field provided with ball retrieval means; said method comprising conveying players on a arcuate path over a portion of said range.
31. The method for the recreation range of claim 30  
15 wherein said field is of generally ovoid shape.
32. The method for the recreation range of claim 31 wherein the periphery of said field is provided with a plurality of target structures.
33. The method for the recreation range of claim 32  
20 wherein said carousel is offset from the center of said ovoid shape.
34. The method for the recreation range of claim 33 wherein the surface of said field slopes downwardly from said carousel to said periphery of said field.

35. The method for the recreation range of claim 34 wherein said field is constructed as a suspended surface overlying a substantially dished subsurface.
36. The method for the recreation range of claim 30 wherein said carousel is provided with two player levels; an upper level and a lower level arranged one above the other around a central support column.
37. The method for the recreation range of claim 36 wherein said central support column is rotatably supported, said column and said carousel adapted to be urged in circular motion by a power source acting through a drive train.
38. The method for the recreation range of claim 37 wherein said ball delivery means and said ball retrieval means are adapted to process a range of ball sizes.
39. The method for the recreation range of claim 38 wherein said ball delivery means and said ball retrieval means are provided with a plurality of balls, each of said balls provided with a unique electronically readable ball recognition code.
40. The method for the recreation range of claim 39 wherein said ball retrieval means is adapted to

return balls from the periphery of said field to said central support column.

41. The method for a recreation range of claim 40 wherein said ball retrieval means includes a plurality of ball collection troughs disposed around the periphery of said field, each of said collection troughs communicating with said central support column by underground shafts sloping downwardly from said periphery towards said central support column.
42. The method for the recreation range of claim 30 and claim 35 wherein said ball retrieval means includes a plurality of openings along the periphery of said field, said openings allowing balls to drop to said dished subsurface.
43. The method for the recreation range of claim 41 and claim 42 wherein said ball delivery means is provided with a ball collections and sorting chamber adapted to sort said ball sizes and deliver sorted balls to designated said player lanes.
44. The method for the recreation range of claim 43 wherein a player urges a ball to follow a trajectory from one of said player lanes in a generally radial direction from said range carousel towards said periphery of said field.



45. The method for the recreation range of claim 44 wherein a ball urged by said player from said player lane towards said periphery of said field is tracked electronically.
- 5 46. The method for the recreation range of claim 45 wherein said target structures are adapted to display a variety of target images.
47. The method for the recreation range of claim 46 wherein said target images are provided with  
10 electronic sensor means adapted to record the impact of a ball and the recognition code of said ball.
48. The method for the recreation range of claim 47 wherein said target images are associated with a point credit system, said credit system adapted to  
15 award credit points to a player when a ball urged by said player strikes said target image.
49. The method for the recreation range of claim 48 wherein said field may be adapted to display a number of target areas, said target areas provided  
20 with sensors to detect the impact of a ball and the recognition code of said ball.
50. The method for the recreation range of claim 49 wherein said credit points accruing to a player are

electronically displayed on display means at the player lane used by said player.

5 51. The method for the recreation range of claim 50 wherein said credit points accrued to a player during a player session are stored in a central database storage facility as a score, said score being available for retrieval from said database for display at subsequent player sessions.

10 52. The method for the recreation range of claim 51 wherein said scores stored in said database storage facility are available for printout.

53. The method for the recreation range of claim 52 wherein said scores are associated with a prize conferring system.

15 54. The method for the recreation range of claim 53 wherein said field is provided with a plurality of ball mortars arranged radially and at various distances from the center of said range carousel, said ball mortars adapted to urge a ball into any  
20 one of a range of specified trajectories, said trajectories ending in the area of a player lane.

55. The method for the recreation range of claim 54 wherein said trajectories are adapted to present a ball to a said player on said player lane simulating

a range of ball approaches to a player as experienced in a game of soccer.

56. The method for the recreation range of claim 55 wherein said ball retrieval means is adapted to provide said balls on demand to said ball mortars.
57. The recreation range system of claim 27 wherein said carousel is provided with amenities, said amenities including a kiosk.
58. The method for the recreation range of claim 57 wherein said ball retrieval means is adapted to provide said balls on demand to said ball mortars.
59. The method for the recreation range of claim 54 wherein said upper player level is provided with a safety net extending radially outward from the periphery of said player level.